

movement of the stylus, and storing respective sets of the coordinates in sequential order as an electronic signature while preserving a time relation between coordinates, the electronic signature forming a time history of the stylus movement; and

B1 (d) means for comparing the electronic signature with a reference signature, comprising the computer processor having a graphic display implemented for simultaneously displaying the electronic signature and the reference signature with corresponding cursors being positioned along a line segment of the signature and oriented perpendicular to the line segment, and the computer being further implemented for moving the cursors in response to operator input.

B2 2/. (Twice amended) The system of claim 1, wherein the means for comparing further comprises reference memory for storing an electronic counterpart of the reference signature, and a cross-correlator for evaluating a degree of correspondence between respective time histories of the electronic signature and the electronic counterpart of the reference signature.

B3 1/. (Amended) A system for managing handwritten signatures, comprising:

(a) a graphic tablet for signaling position coordinates of a stylus during manual movement thereof relative to a writing surface;

(b) a clock circuit in the graphic tablet for periodically initiating position measurements by the graphic tablet at predetermined fixed time intervals;

(c) a first computer processor electrically interfaced with the tablet, the processor being programmed for receiving a multiplicity of the coordinates during the manual movement of the stylus, and storing respective sets of the coordinates in sequential order as an electronic signature while preserving a time relation between coordinates, the electronic signature forming a time history of the stylus movement; and

B3 (d) means for verifying the fixed time intervals of the measurements, comprising the computer being programmed for determining a ratio of a total elapsed time of the measurements and a total number of the measurements, and comparing the ratio with the predetermined interval.

14~~13~~¹¹. The system of claim ~~9~~¹¹, wherein the means for verifying the time intervals comprises:

B4 (a) the clock circuit having a certified unalterable time interval;

(b) the tablet being implemented for transmitting an encoded certification stamp with the coordinate data; and

(c) the computer being programmed for decoding the certification stamp to verify use of the certified time interval.

B5 32~~31~~³¹. (Amended) The method of claim ~~41~~³¹, comprising the further step of encapsulating the electronic signature in a digital signature.

24~~25~~²⁵. (Amended) A system for managing handwritten signatures, comprising:

(a) a graphic tablet for signaling position coordinates of a stylus during manual movement thereof relative to a writing surface;

B6 (b) a computer processor electrically interfaced with the tablet, the processor being programmed for receiving a multiplicity of the coordinates during the manual movement of the stylus, and storing respective sets of the coordinates in sequential order as an electronic signature while preserving a time relation between coordinates, the electronic signature forming a time history of the stylus movement, the computer processor having a graphic display implemented for displaying the electronic signature as sequential line segments; and

(c) the computer processor being further implemented for determining a stylus velocity associated with each line

segment, and displaying the line segments at widths being proportional to the stylus velocity.

35

26. (Amended) A system for managing handwritten signatures, comprising:

(a) a graphic tablet for signaling position coordinates and stylus pressure data of a stylus during manual movement thereof relative to a writing surface;

(b) a computer processor electrically interfaced with the tablet, the processor being programmed for receiving a multiplicity of the coordinates and the stylus pressure data during the manual movement of the stylus, and storing respective sets of the coordinates with the stylus pressure data in sequential order as an electronic signature, the electronic signature forming a time history of the stylus movement and pressure, the computer processor having a graphic display implemented for displaying the electronic signature as sequential line segments; and

(c) the computer processor being further implemented for displaying the line segments at widths being proportional to the stylus pressure data.

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27. (Amended) The method of claim 26, comprising the further step of encapsulating the signature and document receipts in a digital signature.

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29. (Amended) A method for authenticating a document having been signed by a method comprising capturing a handwritten signature as a sequence of data corresponding to coordinates of stylus movement producing the signature, storing the data as an electronic signature, creating a signature receipt as a cryptographic hash function or message digest of the electronic signature, creating a signature encryption key by generating a cryptographic hash function or message digest of a stored counterpart of the document, encrypting the electronic signature

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using the signature encryption key, creating a document receipt as a cryptographic hash function or message digest of a stored counterpart of the document, producing counterparts of the signature and document receipts, and encapsulating the signature and document receipts in a digital signature, the method comprising the further steps of:

- (a) transmitting the digital signature containing the signature and document receipts to a signer of the document;
- (b) recalling the transmitted digital signature
- (c) extracting the signature and document receipts from the digital signature;
- (d) recovering the electronic signature and a stored counterpart of the document;
- (e) generating new signature and document receipts from the recovered electronic signature and the stored counterpart of the document; and
- (f) comparing the recovered signature and document receipts with the new signature and document receipts, the document being authenticated when respective receipt counterparts are matching.

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40. (Amended) A method for authenticating a document having been signed by a method comprising capturing a handwritten signature as a sequence of data corresponding to coordinates of stylus movement producing the signature, storing the data as an electronic signature, creating a signature receipt as a cryptographic hash function or message digest of the electronic signature, creating a signature encryption key by generating a cryptographic hash function or message digest of a stored counterpart of the document, encrypting the electronic signature using the signature encryption key, creating a document receipt as a cryptographic hash function or message digest of a stored counterpart of the document, and producing counterparts of the signature and document receipts, the method comprising the further steps of:

- (a) distributing plural counterparts of the signature and document receipts to signers of the document;
- (b) recalling the distributed signature and document receipts; and
- (c) comparing the recalled signature receipts and the document receipts, the document being authenticated when respective receipt counterparts are matching.

31
41. (Amended) A method for authenticating a document having been signed by a method comprising capturing a handwritten signature as a sequence of data corresponding to coordinates of stylus movement producing the signature, storing the data as an electronic signature, creating a signature receipt as a cryptographic hash function or message digest of the electronic signature, creating a signature encryption key by generating a cryptographic hash function or message digest of a stored counterpart of the document, encrypting the electronic signature using the signature encryption key, creating a document receipt as a cryptographic hash function or message digest of a stored counterpart of the document, and producing counterparts of the signature and document receipts, the method comprising the further steps of:

- (a) delivering the signature and document receipts to a signer of the document;
- (b) recalling the signature and document receipts;
- (c) recovering the electronic signature and a stored counterpart of the document;
- (d) generating new signature and document receipts from the recovered electronic signature and the stored counterpart of the document; and
- (e) comparing the recalled signature and document receipts with the new signature and document receipts, the document being authenticated when respective receipt counterparts are matching.

Please add claims 42-49, as follows:

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~~42.~~ (New) The system of claim ¹¹~~9~~, wherein the first computer processor is a digital processor, and the electronic signature is a digital signature.

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~~43.~~ (New) The system of claim ¹¹~~9~~, wherein the computer is further programmed for encrypting the time history to a fixed key of arbitrary length, the stored electronic signature being in encrypted form.

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~~44.~~ (New) The system of claim ¹⁴~~43~~, wherein the computer is programmed for generating the key as a cryptographic hash function or message digest of the document.

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~~45.~~ (New) The system of claim 1, wherein the computer processor is further implemented for determining a stylus velocity associated with each line segment, and displaying the line segments at widths being proportional to the stylus velocity.

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~~46.~~ (New) The system of claim 1, wherein the computer processor is programmed for displaying the line segments at widths being proportional to the stylus pressure data.

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~~47.~~ (New) The method system of claim ³⁴~~39~~, comprising the further steps of identifying stored instances of the signature encryption key and erasing each such instance.

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~~48.~~ (New) The method system of claim ²⁸~~40~~, comprising the further steps of identifying stored instances of the signature encryption key and erasing each such instance.

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~~49.~~ (New) The method system of claim ³¹~~41~~, comprising the further steps of identifying stored instances of the

7 37

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